
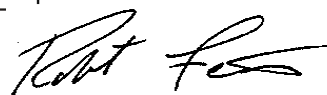




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Lab #	2494557	Report of Analysis		Report Number: 16-062-4116																																																																																																																																																	
<b>Account:</b> 9027	KARLA WELDING LINCOLN SOLID WASTE OPERATIONS 5101 N 48TH ST LINCOLN NE 68504			 Robert Ferris Account Manager 402-829-9871																																																																																																																																																	
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Account: 9027		KARLA WELDING LINCOLN SOLID WASTE OPERATIONS 5101 N 48TH ST LINCOLN NE 68504			  Robert Ferris Client Service Representative 402-829-9871						
Date Sampled: Date Received: Sample ID:		2016-02-17 2016-02-18 SUMMER 2015 COMPOSITE									
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Biological Properties											
Germination		100	%	1	TMECC 05.05A						
Germination Vigor		100	%	1	TMECC 05.05A						
CO <sub>2</sub> OM Evolution		0.13	mgCO <sub>2</sub> -C/gOM/day	0.01	TMECC 05.08B						
CO <sub>2</sub> Solids Evolution		0.17	mgCO <sub>2</sub> -C/gTS/day	0.01	TMECC 05.08B						
Fecal Coliform		< 2	mpn/g	2	EPA 1681						
Salmonella		< 0.01	mpn/4g	0.01	EPA 1682						
Stability Rating		Stable	N/A	N/A	TMECC 05.08B						
Physical Properties											
Bulk Density (Loose)		1146	lbs/cu yard	1	WT/VOL						
Bulk Density (Packed)		1550	lbs/cu yard	1	WT/VOL						
Film Plastics		n.d.	%	0.25	Microscopic						
Glass Fragments		n.d.	%	0.25	Microscopic						
Hard Plastics		n.d.	%	0.25	Microscopic						
Metal Fragment		n.d.	%	0.25	Microscopic						
Sharps		absent	---	---	Microscopic						
Max. Particle Length		1.3	inches	N/A	TMECC Sieve						
Sieve % Passing 3"		100	%	0.01	TMECC Sieve						
Sieve % Passing 2"		100	%	0.01	TMECC Sieve						
Sieve % Passing 1.5"		100	%	0.01	TMECC Sieve						
Sieve % Passing 1"		100	%	0.01	TMECC Sieve						
Sieve % Passing 3/4"		100	%	0.01	TMECC Sieve						
Sieve % Passing 5/8"		100	%	0.01	TMECC Sieve						
Sieve % Passing 3/8"		100	%	0.01	TMECC Sieve						
Sieve % Passing 1/4"		96	%	0.01	TMECC Sieve						

## Compost Results Interpretations

Page 1

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16-062-4116

DATE RECEIVED:

2016-02-18

### Organic Matter %

21.80

As Received

47.22

Dry Weight

Greater than 20% indicates a desirable range for compost on a dry weight basis.

Compost is a significant source of Organic Matter, which is an important supplier of carbon. Organic Matter improves soil and plant efficiency by improving soil physical properties, providing a source of energy to beneficial organisms, and enhancing the reservoir of soil nutrients.

### C/N Ratio

9.3:1

20-30 indicates an ideal range for the initial compost process.

10-20 indicates an ideal range for a finished compost.

All organic matter is made up of substantial amounts of carbon with lesser amounts of nitrogen. The balance of these two elements is called the Carbon/Nitrogen Ratio. For the best performance, the compost pile requires the correct proportion of carbon for energy and nitrogen for protein production. If the C:N ratio is too high (excess carbon) decomposition slows down. If the C:N ratio is too low (excess Nitrogen) the compost pile could be difficult to manage.

### Moisture %

53.83

<35% = Indicates overly dry compost

>55% = Indicates overly wet compost

Moisture Percent is the measure of water present in the compost and expressed as a percentage of total weight. Moisture present affects handling and transport. Overly dry will be light and dusty while overly wet will be heavy and clumpy. A desirable moisture content of finished compost will range between 40 to 50%.

## Compost Results Interpretations

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Conductivity or Soluble Salts measures the conductance of electrical current in a liquid compost slurry. Excessive soluble salt content in a compost can prevent or delay seed germination and proper root growth. Conductivity analysis is done on a 1:5 basis.

Conductivity 1:5
6.1

Conductivity Level	Interpretation
Greater than 10	Very High nutrient content. Use for Ag Applications
5 - 10	High nutrient content. Use for Ag Applications
3 - 5	Higher than desirable for salt sensitive plants, some loss of vigor
0.6 - 3	Desirable range for most plants
0.3 - 0.6	Ideal range for greenhouse growth media
0.0 - 0.3	Very Low: Indicates very low nutrient status: plants may show deficiencies.

## Compost Results Interpretations

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### pH Value

7.7

0 to 14 scale with 6 to 8 as normal pH levels for compost

A pH in the 6 to 8 pH range indicates a more mature compost

pH measures the acidity or alkalinity of the compost, and is a measurement of the hydrogen ion activity of a soil or compost on a logarithmic scale. The pH scale ranges from 0 to 14 and 7 indicates a neutral pH. Growing media with a higher pH or pH greater than 7 can benefit from a compost that has a more acidic pH or pH below 7. This type of application will possibly lower the soil pH making the soil more conducive to plants that thrive in a more acidic soil condition.

### Nutrient Index (Ag Index)

>10

The Nutrient Index normally runs between 1 and 10.

The Nutrient Index is obtained by dividing the total nutrients (N,P,K) by the amount of salt (Sodium and Chloride). The higher the Nutrient Index the less chance of having a toxic buildup of Sodium (salt) in the soil.

AG INDEX CHART										
<i>salt injury possible</i>	<i>use on soils with excellent drainage characteristics, good water quality and low salts</i>				<i>you may use on soils with poor drainage, poor water quality, or high salts</i>				<i>for all soils</i>	
1	2	3	4	5	6	7	8	9	10	> 10

### Nutrients (N+P2O5+K2O)

6.48

Average Nutrient Content Dry Weight

<2 = Low, >5 = High

1.5-0.5-1

Rating As Received

The most commonly used compost data is the amount of Nitrogen, Phosphate, and Potash (abbreviated as N,P,K) present and the information is similar to that found in common fertilizers. If a compost result has the rating 1-2-2 it means that the compost has 1% Nitrogen, 2% Phosphate and 2% Potash. Most compost tests will have an average nutrient level (N+P+K) of < 5%.

**16-062-4116**REPORT DATE  
**Mar 02, 2016**RECEIVED DATE  
**Feb 18, 2016**SEND TO  
**9027**13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121  
www.midwestlabs.com**PAGE 6/6**ISSUE DATE  
**Mar 02, 2016**
**LINCOLN SOLID WASTE OPERATIONS  
KARLA WELDING  
5101 N 48TH ST  
LINCOLN NE 68504**
**REPORT OF ANALYSIS**
**For: (9027) LINCOLN SOLID WASTE OPERATIONS  
SAMPLE ANALYSIS**

Analysis	Level Found		Reporting			Analyst- Date	Verified- Date
	As Received	Dry Weight	Units	Limit	Method		
Sample ID: <b>SUMMER 2015 COMPOSITE</b>	Lab Number: <b>2494557</b>		Date Sampled: <b>2016-02-17 0900</b>				
Cadmium (total)	n.d.	n.d.	mg/kg	0.50	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Chromium (total)	7.06	15.3	mg/kg	1.00	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Mercury (total)	n.d.	n.d.	mg/kg	0.05	EPA 7471 *	ccm2-2016/02/23	kkh9-2016/02/24
Lead (total)	11.0	23.8	mg/kg	5.0	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Molybdenum (total)	n.d.	n.d.	mg/kg	1.0	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Nickel (total)	4.4	9.5	mg/kg	1.0	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Selenium (total)	n.d.	n.d.	mg/kg	10.0	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Zinc (total)	55.7	120.6	mg/kg	2.0	EPA 6010 *	cjm4-2016/02/21	kkh9-2016/02/24
Copper (total)	17.0	36.8	mg/kg	1	EPA 6010 *	ras7-2016/02/22	kkh9-2016/02/24
Arsenic (total)	2.90	6.28	mg/kg	0.5	EPA 6020	akj2-2016/02/22	kkh9-2016/02/24

n.d. = not detected , ppm = parts per million, ppm = mg/kg

For questions please contact:

**Rob Ferris**  
 Account Manager  
 raf4@midwestlabs.com (402)829-9871

The result(s) issued on this report only reflect the analysis of the sample(s) submitted.

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